PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 301 (CRAIN HIGHWAY) AT CHADDS FORD ROAD IN PRINCE GEORGE'S COUNTY. GEOMETRIC MODIFICATIONS ARE PROPOSED TO PROVIDE AN EAST LEG, A SOUTHBOUND DOUBLE LEFT-TURN LANE AND A NORTHBOUND DOUBLE LEFT-TURN LANE. VIDEO DETECTION IS PROPOSED FOR ALL PRESENCE DETECTION AND NON-INVASIVE MICROLOOP PROBES ARE ALSO PROPOSED FOR SETBACK DETECTION. ALL EXISTING TRAFFIC SIGNAL HEADS WILL BE UPGRADED TO BLACK-FACED LED. US 301 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC ACTUATED MODE. EXCLUSIVE LEFT-TURN PHASING WILL BE MAINTAINED ON US 301. AN EAST- AND WESTBOUND SIDE STREET SPLIT IS ALSO PROPOSED, LEAD/LAG OPERATION IS PROPOSED FOR NORTH- AND SOUTHBOUND LEFT TURNS.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED TRAFFIC SIGNAL CONTROLLER WILL REMAIN.

- THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE INSTALLATION OF THE PHONE DROP. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH
- THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

PHASE CHART

Mr. Brian Young Assistant District Engineer - Traffic

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Phone: 301-513-7358

Mr. Augie Rebish Assistant District Engineer - Utility Phone: 301-513-7350

Mr. Wayne Mowdy Assistant District Engineer - Maintenance Phone: 301-513-7304 Mr. Richard L. Daff Sr. Chief, Traffic Operations Division Phone: 410-787-7630

Mr. Edward Rodenhizer Chief, SHA Traffic Signal Shop Phone: 410-787-7652

The Power Company Representative is: Southern Maryland Electrical Cooperative 4061 Powder Mill Road, Suite 600 Calverton, Maryland 20705 Phone: 301-931-2880

P.Q.R.S.T.U.V.W.X.Y

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PHASE I + 6	-6 -	- 6	-6	G	G	G	→R-	 R-	→R-	R	R	R	R	R	R	R	R	. R	<u></u>	<
PHASE I CHANGE	-Y-	Y	- -Y	G	G	G	R-	 R-	 R-	R	R	R	R	R	R	R	R	R	- -	,
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PHASE 2 + 5 CHANGE	- R-	 R-	 R-	R	R	R	Y	 Y -	- Y	Y	Υ	Y	R	R	R	R	R	Ŕ	-	
PHASE 3	- R-	- R-	 R-	R	R	R	-R -			R	R	R	G -6	G	G	R	R	Ŕ	_L.	<u> </u>
PHASE 3 CHANGE	→- R-	→R		R	R	R	→R	→R		R	R	R	Y	Υ	Υ	R	R	R	H	
PHASE 4	- R-	-R -	 R-	Ŕ	R	R	 -R-	 R-	 R-	R	R	R	R	R	R	G	G	G		- H
PHASE 4 CHANGE		⊸R	-4 R	R	R	R	R			R	R	R	R	R	R	Υ	Y	Y	-	
FLASHING OPERATION	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/Y	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R		

NML NML NML

WIRING DIAGRAM 860284 - O,X,Y,GG,MM N,P,Q,R,HH,MM ---H,J,K,N,P,Q,R,HH,MM N,P,Q,R-N,P,Q,R -· H,J,K,N,O,P,Q,R,X,Y,HH,JJ,MM -MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE N,P,Q,R -CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER N CONTROL CABLE, 500 FOOT, VIDEO DETECTION O CAMERA TO CONTROLLER — D,E,F,G -ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG) INTERCONNECT TO CLYMER DRIVE L,V,W,KK,MM-— D,E,F,G,H,J,K,N,O,P,Q,R,X,Y,HH,JJ,MM - A,B,D,C,E,F,G,H,J,K,L,M,N,O LENHART TRAFFIC CONSULTING A,B,C,L,V,W,KK,MM --ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG) TRAFFIC ENGINEERING & TRANSPORTATION PLANNING P,Q,R,S,T,U,V,W,X,Y ---331 Redwood Grove Court Millersville, Maryland 21108 Tel: (410) 987-3888 Fax: (443) 782-2288

EQUIPMENT LIST 'A'

APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

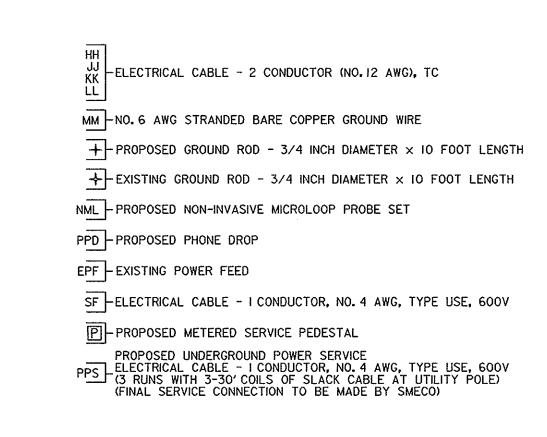
CAT CODE	QUANTITY	DESCRIPTION	CAT CODE	QUANTITY	DESCRIPTION			
800000	6 EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	120500	1 LS	MAINTENANCE OF TRAFFIC			
800000 278 SF		FURNISH AND INSTALL SHEET ALUMINUM	203030	2 CY	TEST PIT EXCAVATION			
		SIGNS - MAST ARM/GROUND MOUNT [EA - SHIELD ASSEMBLY (48"×75")	585424	175 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS			
		"NORTH, US 301, LEFT ARROW"	800000	I LS	REMOVE AND DISPOSE OF TRAFFIC SIGNAL EQUIPMENT			
		I EA SHIELD ASSEMBLY (30"×51") "NORTH, US 301, RIGHT ARROW"	801101	14 CY	CONCRETE FOR SIGNAL FOUNDATION			
		I EA - SHIELD ASSEMBLY (30"×51")	801106	72 LF	WOOD SIGN SUPPORTS, 4 INCH X 6 INCH			
		"SOUTH, US 301, RIGHT ARROW"	802501	600 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE			
		2 EA - D-3(I) (VAR×32") DUAL FACED "CHADDS FORD RD" "TIMOTHY BRANCH DR"	805115	325 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED			
		2 EA - D-3(I) (VAR×I6") DUAL FACED "ROBERT S CRAIN HWY"	805118	275 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED			
		I EA - W9-2(4)(30"×42") "LANE ENDS, MERGE LEFT"	805125	35 LF	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED			
		7 EA - R3-5L (30"x36")	805135	1075 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED			
		2 EA - R3-6L (30"×36") 2 EA - W3-3 (48"×48")	805140	140 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED			
		2 EA - D-3(2) (96"×32")	811011	13 EA	ELECTRICAL HANDHOLE			
010050		"LEFT ARROW, TIMOTHY BR DR" "CHADDS FORD RD, RIGHT ARROW" 27 FOOT STEEL POLE WITH 70 FOOT MAST ARM 27 FOOT STEEL POLE WITH 75 FOOT MAST ARM	813006	. II SF	RELOCATE SIGNS FROM EXISTING OVERHEAD STRUCTURE			
818052 11 -800000	I EA		822500	I EA	AS BUILT FOR SHA ON CADD			
800000	2 EA	RELOCATE EXISTING VIDEO DETECTION CAMERA	832017	150 LF	I CONDUCTOR, NO. 4 AWG, TYPE USE, 600V			
807202	I EA	METERED SERVICE PEDESTAL	837001	3 EA	GROUND ROD - 3/4 INCH DIAMETER BY 10 FOOT LENGTH			
810605	IO EA	NON-INVASIVE MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE	861107	220 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)			
816001	2 EA	VIDEO DETECTION CAMERA	861108	3225 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)			
816005	2 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	861116	1075 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG), TC			
816010	2 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER						
818041	IEA	27 FOOT STEEL POLE WITH 60 FOOT MAST ARM	EQUIPMENT LIST 'C'					
818052	I EA	27 FOOT STEEL POLE WITH 70 FOOT MAST ARM			VED AND RETURNED TO SHA.			
831010 3 EA		250 WATT HPS LAMP AND LUMINAIRE	EQUIFINENT	TO DE MEMO	LU AND RETURNED TO SHA.			
860284 52 EA		12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	CAT CODE	QUANTITY	DESCRIPTION			

20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE

EQUIPMENT LIST 'B'

EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS

SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.



STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

US 301 (CRAIN HIGHWAY) AT CHADDS FORD ROAD

GENERAL INFORMATION										
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DRAWING NO. TS-4238-B-GI OF

NONE - ALL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR

SHEET NO.